Installation Guide

PDXL-2 Dual Power over DXLink Controller

Overview

The PDXL-2 (**FG1090-170**) is a Power over DXLink injector which allows for remote powering of any two DXLink devices. The device simplifies installation by allowing the DXLink Transmitters and Receivers to be placed anywhere even where there are no AC power outlets—simply install a PDXL-2 in any convenient place within the 100 meter path to provide power. The PDXL-2 provides power for DXLink devices by "injecting" power through the twisted pair cable. The PDXL-2 also accepts I/O control from a NetLinx controller allowing power down capabilities to either (or both) of the connected DXLink devices to achieve power savings when the devices are not in use.

FIG. 1 displays the PDXL-2:

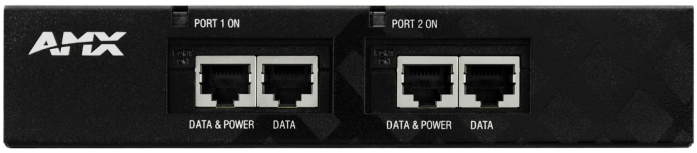

FIG. 1 PDXL-2 Dual Power over DXLink Controller

Specifications

The following table lists the specifications for the PDXL-2:

PDXL-2 Specifications	
Active Power Requirements:	
Power Connector	(1) 100-240V, 50/60 Hz, 1.6A
Power Capabilities	• Maximum Current Draw: 1.0A • Typical Current Draw: 0.35A ***Note:*** *Power consumption depends on the device connected to the DXLink port.*
Environmental:	
Temperature (Operating)	32° to 104° F (0° to 40° C)
Temperature (Storage)	–4° to 158°F (–20° to 70°C)
Humidity (Operating)	90%, Non-condensing (maximum)
Humidity (Storage)	95%, Non-condensing (maximum)
Operating Altitude	–1000 to 10,000 ft. (–304.8 to 3048 m)
DXLink:	
DXLink ports	(2) sets of 2 RJ-45 DXLink connectors
Transport Layer Throughput	10.2 Gbps pass thru
Power over DXLink Output (per output)	• Pin Assignment & Polarity 4/5 (+), 7/8 (-) • Output Power Voltage 55 VDC • Output Power 30 Watts (guaranteed) • Output Current 0.6 A (maximum)
Indicators:	
AC Power Indicator	2 LED (1 for each DXLink Powered Output) • Yellow (On): power is on and active • Green (On): A remote terminal is connected
Channel Power Indicator	(1) LED green
General:	
Dimensions (HWD)	1 7/16" (3.63cm) x 7" (17.78cm) x 6 13/16" (17.24cm)
Weight	2.25 lbs (1.02 kg)
Front Components	• AC Power Indicator • Channel Power Indicator • DXLink ports
Back Components	4 3.5 mm (female) captive-wire connectors. 1 each for: • Ground • Relay port 1 (to be fed from I/O connection) • Relay port 2 (to be fed from an I/O connection) • +12V power feed 1 Power connector
Mounting Options	• Rack: MPA-VRK Rack Mounting Tray (**FG5968-30**) • Surface: AVB-VSTYLE-SURFACE-MNT Surface Mount Brackets (**FG1010-722**) • Pole: AVB-VSTYLE-POLE-MNT Single Module Pole Mounting Kit (**FG1010-723**)

PDXL-2 Specifications (Cont.)		
Compatible AMX Products	• DXLink HDMI Transmitter Module • DXLink Multi-Format Transmitter Module • DXLink Multi-Format Decor Style Wallplate Transmitters (US) • DXLink Multi-Format Wallplate Transmitters • DXLink HDMI Receiver Module	
Twisted Pair Cable Type*	Cat5e, Cat6/6e, Cat6A, Cat7 of UTP, SF/UTP, S/FTP, and F/UTP varieties	
Twisted Pair Cable Length*	Up to 328 ft (100 m) ***Important:*** *DXLink twisted pair cable runs for DXLink equipment should only be run within a common building.*	
Certifications	• FCC Part 15 Class A • CE EN 55022 Class A • C-Tick CISPR 22 Class A • UL 60950-1	• CE EN 55024 • CE EN 60950-1 • IEC 60950-1

* Cable runs with a minimum specification of ANSI/TIE/EIA 568A-5 and ratings of 250 MHz or better may be used with DXLink equipment. However, cable run topology and environmental influences can affect the overall successful distance capabilities of these runs. For successful deployments up to 100 meters without consideration to outside variables, AMX recommends the use of shielded category cable (STP) or Cat6A (or better) versions of unshielded or shielded twisted pair (UTP/STP) for DXLink runs. For more details and helpful cabling information, please contact your AMX representative for a copy of the white paper titled "*Cabling for Success with DXLink*".

Important Safety Information

- The PDXL-2 should be connected to DXLink devices only. Outside network connections are not supported.
- Only qualified personnel can install or remove the PDXL-2.
- AC Power Cord Set:
  * The power cord must have regulatory agency approval for the specific country in which it is used (for example, UL, CSA, VDE, etc.)
  * The power cord must be a three-conductor type (two current-carrying conductors and one ground conductor) terminated on one end by an IEC 60320 appliance coupler (for connection to the PDXL-2), and on the other end by a plug containing a ground (earthing) contact.
  * The power cord must be rated for a minimum of 250 VAC RMS operation, with a minimum rated current capacity of 5 amps or a minimum wire gauge of 18 AWG (0.75 mm^2).
- A PDXL-2 installed in Australia requires power cords with a minimum wire gauge of 16 AWG (1.0 mm^2).
- The PDXL-2 DATA and DATA & POWER ports are shielded RJ45 data sockets. They CANNOT be used as Plain Old Telephone Service (POTS) telephone sockets. Only RJ45 data connectors may be connected to these sockets.
- The AC wall socket-outlet must be near the PDXL-2 and easily accessible. You can remove AC power from the PDXL-2 by disconnecting the AC power cord from either the wall socket-outlet or the PDXL-2 appliance coupler.
- The PDXL-2 "DATA" and "DATA & POWER" interfaces are qualified as Safety Extra-Low Voltage (SELV) circuits according to IEC 60950-1. These interfaces may only be connected to SELV interfaces on other equipment.
- AMX only supports the use of our Enova DGX, Enova DVX, DXLink or Power over DXLink solutions as the use of any other power supplies or non-compatible standard PoE solutions may potentially damage the DXLink equipment.

WARNINGS!

- The PDXL-2 should only be connected to devices compatible with this product. Using the PDXL-2 with incompatible devices may cause damage to the device.
- Read the installation instructions before connecting the PDXL-2 to its power source.
- Follow basic electricity safety measures before connecting the PDXL-2 to its power source.
- A voltage mismatch can cause equipment damage and may pose a fire hazard. If the voltage indicated on the label is different from the power outlet voltage, do not connect the PDXL-2 to this power outlet.

Mounting the Device

The PDXL-2 may be mounted on a flat surface using AVB-VSTYLE-SURFACE-MNT Surface Mount Brackets (**FG1010-722**) to mount the device. See the *Module Options for V Styles Modules Quick Start Guide* for mounting instructions.

Use MPA-VRK Rack Mount Brackets (**FG5968-30**) for a rack mount installation.

Use the AVB-VSTYLE-POLE-MNT Single Module Pole Mounting Kit (**FG1010-723**) for a pole mount installation.

Preliminary Steps

Before placing the PDXL-2:

- Ensure that AC power is applied to the PDXL-2, using an operational ground connection.
- Connect the incoming DXLink twisted pair connection to the Data port and connect the twisted pair connection for the DXLink device to be powered to the Power port.
- Do not cover the device or block the airflow to the device with any foreign objects. Keep the PDXL-2 away from excessive heat and humidity and free from vibration and dust.
- Ensure that the cable length from the originating DXLink source to the final DXLink destination does not exceed 328 feet (100 meters). The device is not a repeater and does not amplify the DXLink data signal.
- The PDXL-2 does not have a power switch. Simply plug the device into an AC power source.

Installing the PDXL-2

Perform the following steps to install the PDXL-2:

1. Connect the PDXL-2 to an AC outlet (100-240VAC) using an appropriate power cord.
2. Connect the DATA & POWER port to a DXLink Transmitter, Receiver, or Wallplate via the appropriate twisted pair cable.
3. Use an additional twisted pair cable to connect the DATA port to a separate DXLink Transmitter, Receiver, or Wallplate.

Note: *If connecting both DATA & POWER ports to separate devices, use the provided twisted pair cable to connect the two DATA ports together. Connecting the DATA ports is not necessary if you are only connecting one DATA & POWER port to another device.*

4. Connect the PDXL-2 to the I/O port on your Master so you can power off connected devices. This step is optional.

FIG. 2 displays an example configuration when using only one DATA & POWER port to power a device. In this example, the RX is powered by the PDXL-2 while the TX is powered by a local power supply, so a power line to the TX is not needed.

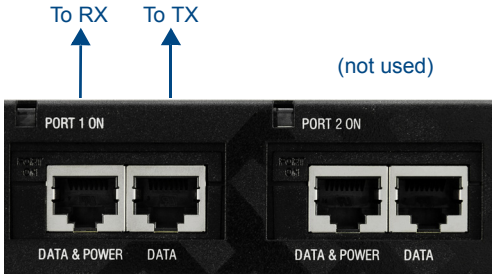

FIG. 2 Wiring using one DATA & POWER port

FIG. 3 displays an example configuration when using both DATA & POWER ports to power two separate devices:

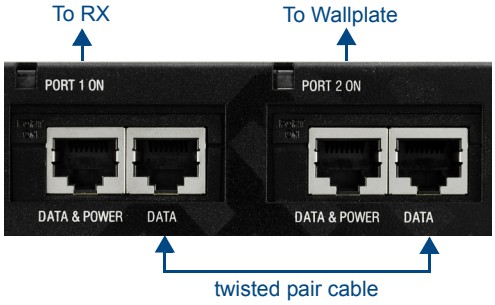

FIG. 3 Wiring using both DATA & POWER ports

Pin Connections

FIG. 4 describes the PDXL-2 pin-out connections for the IN and OUT Ports on the front panel of the device.

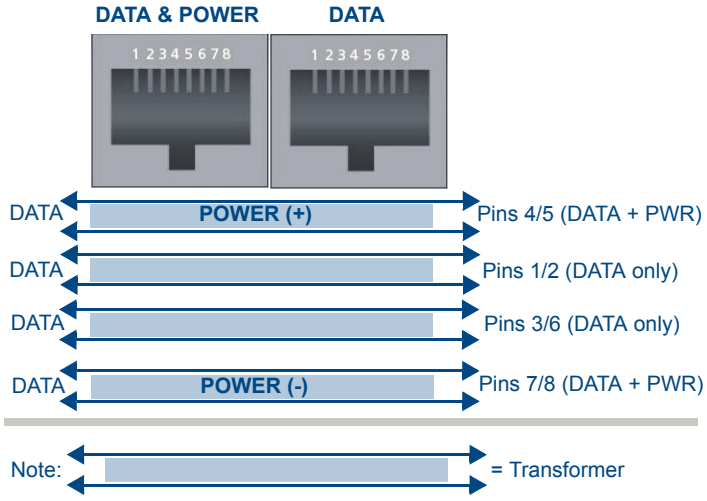

FIG. 4 PDXL-2 pin-out connections

Relay Port Wiring

Connecting the PDXL-2 to the I/O port on your Master enables you to power off devices connected to the PDXL-2.

FIG. 5 displays the relay port on the rear panel of the PDXL-2:

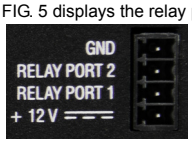

FIG. 5 Relay Port

Relay Port Wiring Specifications		
Pin	**Signal**	**Function**
1	GND	Signal GND
2	Relay Port 2	Input/Output
3	Relay Port 1	Input/Output
4	12 VDC	PWR

Powering Off Connected Devices

The relay port on the PDXL-2 is set to ON by default. To set the relay port on the PDXL-2 to OFF, you must connect the relay port to an I/O port on a Master and set the corresponding I/O channel on the Master to ON. Consult the *NetLinx Integrated Controllers WebConsole & Programming Guide* for more information on channels and commands.

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